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CHAMPVA POLICY MANUAL

CHAPTER: 2
SECTION: 4.1
TITLE: CARDIOVASCULAR SYSTEM

AUTHORITY: 38 CFR 17.270(a) and 17.272(a)

RELATED AUTHORITY: 32 CFR 199.4(c)(2) and (c)(3)

I. EFFECTIVE DATES

- A. August 26, 1985.
- B. January 1, 1989, for coil or balloon embolization of PAVM (Pulmonary Arteriovenous Malformations).
- C. November 20, 1992, for the external ventricular assist device.
- D. September 30, 1994, for the HeartMate IPLAD (Implantable Pneumatic Left Ventricular Assist Device).
- E. March 1, 2001, for gamma and beta intracoronary radiotherapy (brachytherapy).
- F. January 1, 2002, for TMR (Transmyocardial Revascularization).
- G. April 4, 2002, ABPM (Ambulatory Blood Pressure Monitoring) 24-hours or longer for patients with suspected white coat hypertension.
- H. November 6, 2002, for the HeartMate VE LVAS (Left Ventricular Assist System).
- I. October 1, 2003, for ventricular assist devices as destination therapy.

II. PROCEDURE CODE(S)

- A. CPT codes: 32095, 32100-32160, 33010-37799, 64809-64818, 92950-93272, 93303-93745, 93770-93799

B. HCPCS Level II Code: G0166

III. DESCRIPTION

The cardiovascular system involves the heart and blood vessels, by which blood is pumped and circulated through the body.

IV. POLICY

Medically necessary services and supplies required in the diagnosis and treatment of illness or injury involving the cardiovascular system are covered.

V. POLICY CONSIDERATIONS

A. Cardiopulmonary Bypass. A cardiopulmonary bypass procedure performed independently is covered. When performed in conjunction with other related cardiovascular surgery, reimbursement is included in the basic allowance for the procedure with the highest value.

B. Insertion of a Permanent Cardiac Pacemaker.

1. Insertion of a Permanent Cardiac Pacemaker (CPT codes 33200-33208) is covered. Repositioning or replacement electrode (CPT code 33216) in the first 14-postoperative days is included in the basic allowance to the primary surgeon, or a member of his/her professional association of the same specialty, for the primary surgery.

2. All pacemakers replaced because of failure during the first 14-postoperative days will be disallowed routinely unless accompanied by documentation of equipment failure confirmed by medical review.

C. Insertion of Temporary Cardiac Pacemaker Electrodes. Insertion of a temporary cardiac pacemaker electrode (CPT codes 33210-33211) is covered and reimbursement will be at 100% of the allowance for the initial insertion. Subsequent insertions of temporary pacemaker electrodes by the primary surgeon or a member of his/her professional group of the same specialty during the same hospital admission are to be reimbursed by the following criteria:

1. 50% of the allowance for the second insertion
2. 25% of the allowance for all other insertions

D. Insertion of Internal Pacemaker with Epicardial Electrodes.

1. Insertion of an internal pacemaker with epicardial electrodes (CPT codes 33200-33201) by the primary surgeon, or a member of his/her professional group of the same specialty is covered.

2. When performed in conjunction with a thoracotomy (CPT code 32095), reimbursement will be for the procedure with the highest value only.

E. Coronary Artery Procedures/Coronary Endarterectomy or Coronary Angioplasty. Coronary artery procedures (CPT codes 33502-33530) performed in conjunction with coronary endarterectomy is covered. Reimbursement will be for the procedures with the highest value only.

F. Incidental Surgical Procedures.

1. Reimbursement for certain surgical procedures, when performed incidental to other surgical procedures by the operating surgeon or his assistant, is included in the basic allowance for the major procedures.

2. The most common (but not all) such procedures are listed below:

a. Operative central venous pressure catheter placement (CPT codes 36481-36510) with any major surgery.

b. Arterial catheterization (or canalization) for monitoring (CPT codes 36620-36625) with any major surgery.

G. Arterial Resection Endarterectomy or Thrombectomy. An arterial resection with graft replacement or with a bypass graft is covered. When performed in conjunction with an endarterectomy or thrombectomy and/or removal of veins, to be used for the bypass graft, reimbursement is for the procedure with the highest value only.

H. Aortic Surgery/Thoracolumbar Sympathectomy. When a thromboendarterectomy (or thrombectomy) of the abdominal aorta (CPT code 35331) or any other aortic surgery is performed during the same operative session as a thoracolumbar sympathectomy (CPT code 64809), reimbursement is for the procedure with the highest value only.

I. Extremity Artery Procedures/Lumbar Sympathectomy. When extremity artery procedures are performed in conjunction with a lumbar sympathectomy (CPT code 64818), reimbursement is 100% of the allowance for the procedure with the highest value and 50% of the allowance for the procedure with the lesser value.

J. Arterial Perfusion/Axillary, Inguinofemoral or Pelvic Lymphadenectomy. When arterial perfusion of an extremity for the treatment of malignant disease is performed in conjunction with an axillary, inguinofemoral or pelvic lymphadenectomy (superficial or radial) the arterial perfusion will be reimbursed at 100% of the allowance in addition to the lymphadenectomy.

K. Exchange Transfusions. Exchange transfusions (CPT codes 36450-36455) are covered services. Reimbursement will be 100% of the allowance for all medically necessary transfusions.

L. Postoperative Complications Following Cardiovascular Surgery.

1. Treatment of postoperative complications following cardiovascular procedures during the same hospital admission, requiring additional surgical procedures is covered.

2. Reimbursement will be 50% of the allowance for the first complication and 25% of the allowance for each additional procedure, excluding hemorrhaging or wound dehiscence within 72-hours after the primary surgery.

M. Arteriogram Performed at Surgery. When an arteriogram is performed at the operating table after an endarterectomy has been completed, to determine the result of the surgical procedure, no additional payment will be allowed for the arteriogram (injection procedure only); however, payment will be allowed for the radiological service, that is, aortography and/or angiography.

N. Angiocardiography. The full allowable charge for angiocardiography is payable to the primary provider. Additional or split payment will not be made to another physician for interpretation which duplicates an interpretation made by the primary provider, unless the primary provider requests a consultation.

O. Angistat (Carotid Sinus Nerve Stimulator). Payment will be allowed for a carotid sinus nerve stimulator (Angistat) and for the related services required for the implantation of the device, for the relief of angina pectoris in carefully selected patients who are refractory to medical therapy and who, after undergoing coronary angiography study, either are poor candidates for, or refuse to have coronary bypass surgery.

P. Norwood Procedure. CHAMPVA benefits may be allowed for the Norwood procedure for treatment of hypoplastic left heart syndrome.

Q. External Ventricular Assist Devices (ABIOMED 5000).

1. The external ventricular assist device (ABIOMED 5000) has been approved for cost sharing forth the following:

- a. A patient who experienced heart failure after surgery
- b. Who did not respond to continual post-operative treatment with drugs or intra-aortic balloon pumps

2. Payment will not be made if the device is used while the patient is awaiting a heart transplant.

R. Pulmonary valve and artery allografting. Pulmonary valve and artery allografting may be cost shared in the treatment of truncus arteriosus.

S. Coil or balloon embolization of PAVM (Pulmonary Arteriovenous Malformations). The medical record must document that:

1. Adequate workup has disclosed the presence of:
 - a. At least one PAVM with afferent artery diameter greater than three millimeters
 - b. Multiple PAVMs
2. Segmentectomy or local excision is contraindicated
3. Following adequate informed consent, the patient has declined surgical intervention.

Note: Devices used with embolization procedure must meet the criteria of [Chapter 2, Section 17.8](#), *Requirements For Food And Drug Administration Approval For Medical Devices*.

T. Coronary and intracoronary artery stenting may be cost shared (see [Chapter 2, Section 4.5](#), *Intracoronary Stents*).

U. Implantable Ventricular Assist Devices: The HeartMate IPLVAD (Implantable Pneumatic Left Ventricular Assist Device) has been approved for cost sharing as a bridge to cardiac transplantation (see [Chapter 2, Section 31.2](#), *Heart Transplantation*).

V. ECP (External Counterpulsation) commonly referred to as EECP (Enhanced External Counterpulsation). ECP/EECP is covered in patients with severe chronic stable angina who are not considered suitable candidates for angioplasty or revascularization, or who have continuing angina despite surgical intervention. Both of the following criteria must be met for coverage:

1. Patients with disabling angina, class III or class IV
2. Patients who are not responding to the maximum medical therapy and who are not readily amenable to surgical intervention such as PTCA (Percutaneous Transluminal Coronary Angioplasty) or cardiac bypass due to any of the following:
 - a. Their condition is inoperable
 - b. They are at high risk of operative complications or postoperative failure
 - c. Their coronary anatomy is not readily amenable to such procedures
 - d. They have comorbid states, which create excessive risk

W. Implantable Ventricular Assist Devices: The HeartMate VE LVAS (Left Ventricular Assist System) has been approved for cost sharing for patients with end-stage heart failure who are ineligible for cardiac transplantation and are currently managed with ACE (Angiotensin Converting Enzyme) inhibitors, beta blockers, and inotropic agents.

X. ABPM (Ambulatory Blood Pressure Monitoring) 24-hours or longer for those patients with suspected white coat hypertension. ABPM coverage includes recording, scanning analysis with report and a physician review with interpretation and is necessary to determine the appropriate management of the patient. Medical review is required. The following criteria must be met for ABPM for white coat hypertension:

1. Office blood pressure >140/90 mm Hg on at least three separate clinic/office visits with two separate measurements made at each visit
2. At least two documented blood pressure measurements taken outside the office which are <140/90 mm Hg
3. No evidence of end-organ damage

Y. Gamma and beta intracoronary radiotherapy (brachytherapy) is covered for the treatment of in-stent restenosis in native coronary arteries.

Z. TMR (Transmyocardial revascularization) (CPT codes 33140 and 33141).

1. Coverage is available for patients with stable class III or IV angina which has been found refractory to standard medical therapy, including drug therapy at the maximum tolerated or maximum safe dosages. In addition, the angina symptoms must be caused by areas of the heart not amenable to surgical therapies such as percutaneous transluminal coronary angioplasty, stenting, coronary arterectomy or coronary bypass.

2. Coverage is limited to lasers that are approved by the FDA (Food and Drug Administration) for the purpose for which they are being used.

3. TMR as an adjunct to CABG (Coronary Artery Bypass Graft) is covered for patients with documented areas of the myocardium that are not amenable to surgical revascularization due to unsuitable anatomy.

AA. Ventricular assist devices as destination therapy **is** covered if they have received approval from the FDA for that purpose and are used according to FDA approved labeling instructions. Benefits are authorized when the procedure is performed at a TRICARE-certified heart transplant center, a TRICARE-certified pediatric consortium heart transplantation center, or a Medicare facility which is approved for ventricular assist device implantation as destination therapy, for patients who meet all of the following conditions:

1. The patient has chronic end-stage heart failure (New York Heart Association Class IV end-stage left ventricular failure for at least 90-days with a life expectancy of less than 2-years).
2. The patient is not a candidate for heart transplantation.
3. The patient's Class IV heart failure symptoms have failed to respond to optimal medical management, including a dietary restriction, diuretics, digitalis, beta-blockers, and ACE inhibitors (if tolerated) for at least 60-days of the last 90-days.
4. The patient has LVEF (Left Ventricular Ejection Fraction) less than 25%.
5. The patient has demonstrated functional limitation with a peak oxygen consumption of less than 12-ml / kg / min; or the patient has a continued need for intravenous inotropic therapy owing to symptomatic hypotension, decreasing renal function, or worsening pulmonary congestions.
6. The patient has the appropriate body size (by device per FDA labeling) to support the ventricular assist device implantation.

VI. EXCLUSIONS

- A. Ambulatory blood pressure monitoring, except as indicated in Policy Considerations.
- B. Cardiomyoplasty (cardiac wrap) for treatment of heart failure.
- C. Minimally invasive CABG surgery to include MIDCAB (Minimally Invasive Direct Coronary Artery Bypass) and PACAB (Port Access Coronary Artery Bypass).
- D. The use of the Angistat in the treatment of paroxysmal supraventricular tachycardia.
- E. External counterpulsation for the treatment of other conditions, except as indicated in Policy Considerations.
- F. External ventricular assist device if the device is used while the patient is awaiting a heart transplant.
- G. Thermogram; cephalic peripheral.
- H. Robotically Assisted Coronary Artery Bypass Surgery. [November 2004]
- I. PMR (Percutaneous Myocardial Laser Revascularization).
- J. PTA (Percutaneous Transluminal Angioplasty) in the treatment of obstructive lesions of the carotid, vertebral and cerebral arteries.

K. Signal-Average Electrocardiography.

END OF POLICY